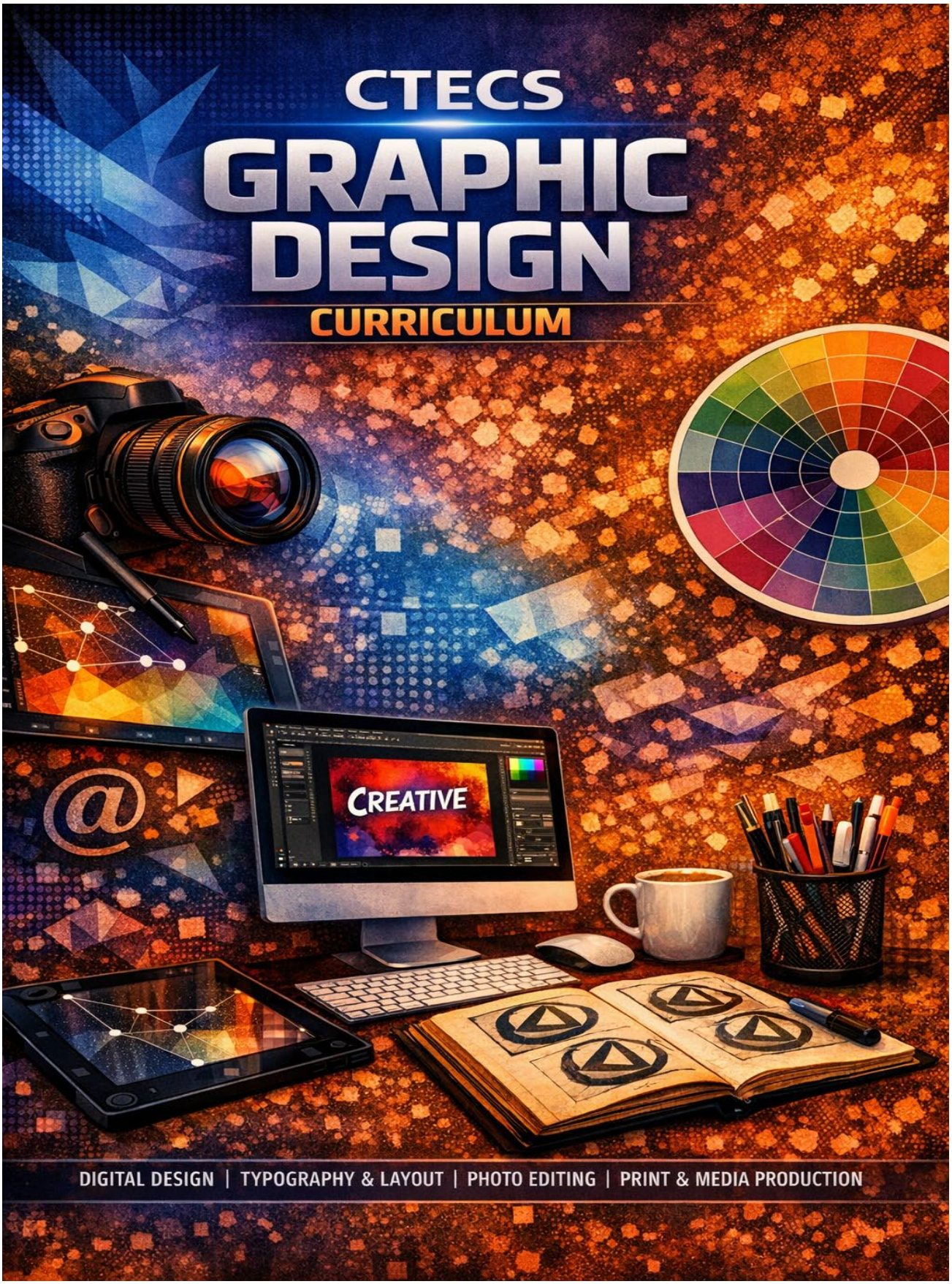
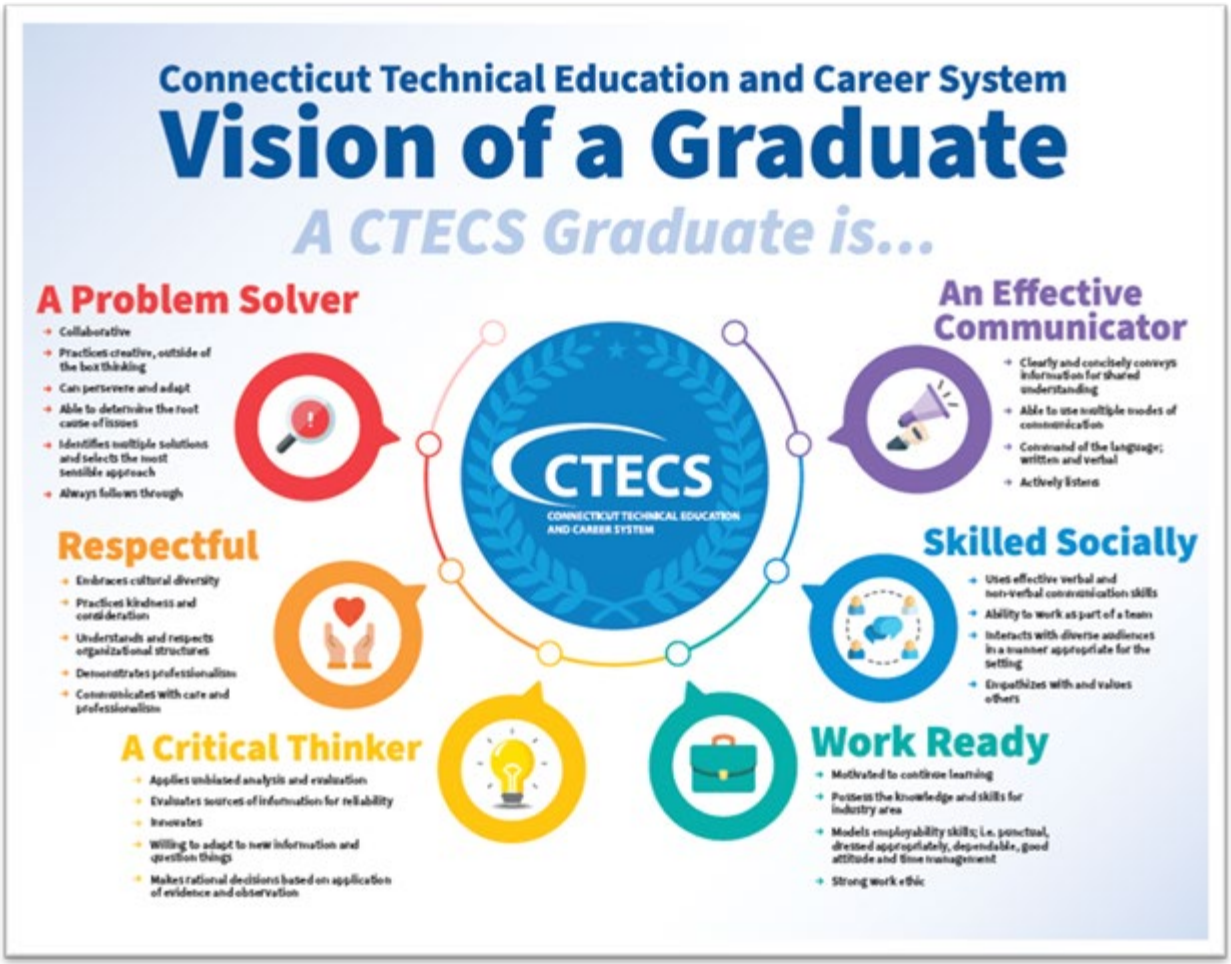

CTECS
GRAPHIC DESIGN
CURRICULUM
CREATIVE
DIGITAL DESIGN | TYPOGRAPHY & LAYOUT | PHOTO EDITING | PRINT & MEDIA PRODUCTION

Contents

CTECS – Vision of the Graduate

The Vision of a Graduate (VoG) at the Connecticut Technical Education and Career System (CTECS) embodies our commitment to preparing students for success in Connecticut's workforce. Developed in collaboration with students, parents, staff, and employers, the VoG ensures that CTECS students are not only job-ready but also equipped to lead, innovate, and adapt in a dynamic world.

As educators, we are dedicated to developing these qualities by providing a comprehensive education that empowers our students to achieve their fullest potential and make meaningful contributions to society.



A Problem Solver	Work Ready
Problem solvers tackle challenges by identifying root causes of issues, brainstorming solutions, implementing effective strategies, and demonstrating adaptability. • **Engage students with open-ended, creative thinking tasks that require both conventional and innovative solutions.** • **Facilitate group discussions and collaborative projects.** • **Use real-world scenarios and hands-on activities.** • **Highlight the importance of effort, persistence, and continuous learning.** • **Provide regular feedback and encourage reflection.**	***To be work-ready includes a combination of technical expertise, soft skills, and personal qualities that ensure a graduate can effectively contribute to the workplace from day one.*** • **Set high standards for punctuality, responsibility, professionalism, and task completion.** • **Use project-based learning and collaborative assignments.** • **Emphasize clear written and verbal communication.** • **Offer practical exercises like mock interviews and resume workshops.** • **Integrate technology and teach digital literacy.**
Respectful	**Skilled Socially**
Graduates who embody respectfulness emphasize the importance of treating others with dignity, valuing diversity, and fostering an inclusive and positive environment, both personally and professionally. • **Demonstrate personal, interpersonal, and professional skills.** • **Show respect for diversity.** • **Model respect through active listening and empathy.**	***Graduates who are skilled socially are equipped to navigate social environments, build relationships, and contribute positively to their communities and workplaces.*** • **Show awareness of global responsibility to others and the environment.** • **Participate in community involvement.** • **Design cooperative group projects and team activities**

• **Set clear expectations for respectful interactions.** • **Promote collaboration and group discussions.** • **Celebrate respectful behavior.** • **Address disrespect promptly and constructively.**	• **Set expectations for respect and give regular feedback.** • **Facilitate discussions on inclusivity, kindness, and respect.** • **Model positive interactions and recognize strong social skills.**
A Critical Thinker	**An Effective Communicator**
Critical thinkers approach problems systematically by analyzing, evaluating, and synthesizing information to make well-informed decisions and contribute to innovative solutions. • **Encourage critical thinking individually and collaboratively.** • **Design lessons that challenge assumptions and explore diverse viewpoints.** • **Use open-ended questions, rigorous activities, and cross-curricular projects.** • **Integrate project-based learning and real-world problem-solving.** • **Offer reflective opportunities like journaling and discussions.** • **Cultivate an environment that values curiosity and inquiry.**	***Effective communicators convey ideas, information, and emotions accurately and persuasively, fostering understanding and collaboration.*** • **Communicate effectively using oral, written, visual, artistic, and technical modes.** • **Include group discussions, presentations, and peer reviews.** • **Promote active listening and thoughtful responses.** • **Offer clear guidelines and constructive feedback.** • **Stress clear, respectful, and purposeful communication.**

CTECS Instructional Model (Marzano)

CTECS uses the Marzano Compendium to guide research-based instructional strategies that differentiate learning and promote access, engagement, and success for all students. Teachers apply these strategies to support diverse learners, including multilingual learners, students with disabilities, and students with varied academic or technical backgrounds, through scaffolds, modeling, guided practice, and multiple ways to participate and demonstrate understanding.

This instructional approach ensures students progress toward proficiency in the Priority Standards and the competencies outlined in the CTECS Vision of a Graduate.

Feedback	Content	Context
Providing and Communicating Clear Learning Goals 1. Providing scales and rubrics 2. Tracking student progress 3. Celebrating success **Using Assessments** 4. Using informal assessments of the whole class 5. Using formal assessments of individual students	**Conducting Direct Instruction Lessons** 6. Chunking content 7. Processing content 8. Recording and representing content **Conducting Practicing and Deepening Lessons** 9. Using structured practice sessions 10. Examining similarities and differences 11. Examining errors in reasoning **Conducting Knowledge Application Lessons** 12. Engaging students in cognitively complex tasks 13. Providing resources and guidance 14. Generating and defending claims **Using Strategies That Appear in All Types of Lessons** 15. Previewing strategies 16. Highlighting critical information 17. Reviewing content 18. Revising knowledge 19. Reflecting on learning 20. Assigning purposeful homework 21. Elaborating on information 22. Organizing students to interact	**Using Engagement Strategies** 23. Noticing and reacting when students are not engaged 24. Increasing response rates 25. Using physical movement 26. Maintaining a lively pace 27. Demonstrating intensity and enthusiasm 28. Presenting unusual information 29. Using friendly controversy 30. Using academic games 31. Providing opportunities for students to talk about themselves 32. Motivating and inspiring students **Implementing Rules and Procedures** 33. Establishing rules and procedures 34. Organizing the physical layout of the classroom 35. Demonstrating withitness 36. Acknowledging adherence to rules and procedures 37. Acknowledging lack of adherence to rules and procedures **Building Relationships** 38. Using verbal and nonverbal behaviors that indicate affection for students 39. Understanding students' backgrounds and interests 40. Displaying objectivity and control **Communicating High Expectations** 41. Demonstrating value and respect for reluctant learners 42. Asking in-depth questions of reluctant learners 43. Probing incorrect answers with reluctant learners

Curriculum Introduction

This curriculum document outlines the essential learning for this academic program and provides a clear structure for planning, instruction, and assessment. It includes the components required by NEASC Standard 2.2a, along with elements that reflect the unique nature of CTECS academic programs. The curriculum is organized to show what students learn in each course, how learning progresses across grade levels, and how instruction supports both technical skill development and the CTECS Vision of a Graduate.

Teachers should use this document to:

- Understand the overall structure and expectations of the course sequence
- Reference the Course Map to see the scope and sequence of Priority Standards and the alignment to district assessments
- Use the Priority Standards and Units of Study to guide daily, weekly, and cycle-based planning
- Integrate Big Ideas, Essential Questions, Skills/Learning Outcomes, vocabulary, and resources during lesson design
- Plan and implement formative assessments to monitor progress and guide instruction
- Maintain consistency of technical and artistic practice instruction across campuses while adapting to student needs and industry-based opportunities

Curriculum Components

Course Map

A Course Map serves as the scope and sequence for this course by outlining the progression of instructional units and the standards that guide teaching and assessment. While each campus will have individual student needs and cycle schedules, all instructors are expected to teach the standards outlined in the Course Map. Using the Course Map

below, teachers will intentionally plan learning experiences that prepare students to meet the identified standards within the designated assessment windows.

Priority Standards (Units of Study)

Priority Standards identify the most essential learning in the program. They reflect the core competencies and skills that require the greatest instructional focus and appear on program assessments. Priority Standards guide each Unit of Study with big ideas, essential questions, content topics, and skills/learning outcomes aligned to assessments.

Vertical Alignment

Vertical alignment shows how Priority Standards and instructional expectations progress within the program. It provides a clear pathway of skill development, increasing complexity, and technical proficiency across a sequence.

Learning Outcomes

Learning outcomes are what students will know (Concepts) and be able to do (Skills).

Concepts identify the major content topics within the Priority Standard (Unit of Study). They appear in the left column of the Learning Outcomes table and follow a similar coding structure as the Priority Standard.

Skills are learning objectives that describe the measurable actions students must be able to perform to demonstrate proficiency. They appear in the right column of the Learning Outcomes table and show the progression of learning evidence in the Priority Standard.

Vocabulary

Essential vocabulary includes the content and academic terms students must understand and use accurately to engage in learning and demonstrate proficiency on assessments. Vocabulary is foundational to communication, and should be a primary initial focus within each unit and taught explicitly through modeling, demonstration, and repeated application.

Resources

Resources include the texts, materials, and digital tools that support learning within each unit to achieve the standards.

Assessment Practices

Teachers use ongoing formative assessments—such as questioning, checks for understanding, performance demonstrations, reflections, and teacher observation—to monitor progress, guide instruction, and support all learners in mastering the Priority Standards.

Each program also includes district assessments, which measure proficiency on the Priority Standards identified in the Course Map. These assessments provide consistent evidence of student learning across campuses and ensure alignment to course expectations and program outcomes. Teachers should reference the Course Map and Units of Study when planning instruction to ensure students have opportunities to practice and demonstrate the skills and knowledge assessed on the district assessments.

Grade 9 Graphic Design Curriculum

Grade 9 Graphic Design Course Map (Two-Semester Model)

Course Length: Full Year
Structure: 2 Semesters (18–20 weeks each)
Approach: Foundational visual communication, professional habits, and production workflows emphasizing safety, design fundamentals, storytelling, file discipline, and ethical practice in preparation for advanced Graphic Design coursework

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Semester 1 – Visual Foundations, Safety & Design Fundamentals

Focus: Professional habits, foundational design literacy, and intentional visual composition

Unit	Priority Standards	Focus Areas	Estimated Duration
Unit 1: Safe Work Habits & Digital Security	9.1	Lab safety, ergonomics, digital security, responsibility, prevention routines	2–3 weeks
Unit 2: Principles & Elements of Design	9.2	Elements, principles, hierarchy, consistency, typography fundamentals	5–6 weeks
Unit 3: Design as Storytelling	9.3	Audience, sequence, tone, visual clarity, intentional messaging	4–5 weeks
Semester 1 Culminating Experience	Integrated	Visual composition project applying safety, design principles, and storytelling	2–3 weeks

Semester 1 Outcomes

Students will:

- Demonstrate **safe and responsible studio practices**

- Apply **elements and principles of design** intentionally
- Communicate messages visually through **structured composition**
- Explain and justify **design decisions** using industry vocabulary
- Create visually clear work aligned to **audience and purpose**

Semester 2 – Production, Ethics, File Discipline & Print Systems

Focus: Professional workflows, ethical practice, organization, and physical production

Unit	Priority Standards	Focus Areas	Estimated Duration
Unit 4: File Management & Professional Organization	9.4	Folder structure, naming conventions, version control, storage practices	3–4 weeks
Unit 5: Copyright, Fair Use & Attribution	9.5	Copyright, fair use, licensing, ethical sourcing, attribution	3–4 weeks
Unit 6: Printing Systems & Production Processes	9.6	Printing methods, terminology, file preparation, quality control	4–5 weeks
Semester 2 Culminating Experience	Integrated	End-to-end design project from concept → file prep → production review	2–3 weeks

Semester 2 Outcomes

Students will:

- Organize and manage files using **professional production conventions**
- Apply **copyright and fair use** principles in creative work
- Prepare digital designs for **physical production**
- Identify and correct **common production errors**
- Reflect on quality, efficiency, and process improvement

Year-at-a-Glance Summary

Semester	Primary Emphasis
Semester 1	Safety, visual fundamentals, storytelling, design principles
Semester 2	File management, ethics, production workflows, print systems

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Assessment & Evidence (Across Both Semesters)

- Safety and security checklists and reflections
- Visual composition and layout projects
- Audience-driven design revisions
- File organization audits and version tracking
- Copyright and attribution documentation
- Print preparation checklists and production reviews
- Portfolio-ready design artifacts

Grade 9 → Grade 10 Transition

This course map intentionally prepares students for **Grade 10 Graphic Design** by building:

- Foundational **visual literacy and design language**
- Professional **workflow and file discipline**
- Ethical decision-making in creative production
- Confidence using design tools and production systems
- Readiness for **more complex client-based and project-driven work**

CTECS Graphic Design – Grade 9 Curriculum

Program-Wide Big Ideas (Grade 9)

1. **Safety, ethics, and security are non-negotiable professional responsibilities.**
2. **Design communicates meaning through intentional visual choices.**
3. **Stories, structure, and organization shape how messages are understood.**
4. **Production accuracy and file discipline enable reliable outcomes.**

Program-Wide Essential Questions (Grade 9)

1. How do professionals protect people, data, and intellectual property?
2. How do visual principles influence clarity and impact?
3. How does design function as a form of storytelling?
4. Why do organization and production processes matter in creative work?

Priority Standard 9.1: Safe Work Habits + Digital Security

Students will demonstrate safe work habits and responsible digital security practices in classroom, lab, and production environments.

Big Ideas

- Safety and security protect people, equipment, and information.
- Digital systems require proactive protection practices.
- Professional environments demand consistency and accountability.
- Human behavior is a primary factor in safety and security outcomes.

Essential Questions

- Why are safety and security considered professional obligations?
- How do unsafe habits create risk in physical and digital spaces?

- What responsibilities do individuals have in shared environments?
- How do preventative practices reduce incidents and downtime?

Learning Outcomes	
9.1.1 Safety	•Identify hazards in classroom and lab spaces •Apply safe posture and workstation setup • Follow posted safety procedures consistently • Identify common safety risks in a graphic design lab. • Explain the purpose of Safety Data Sheets (SDS). • Describe safe use of basic tools such as paper cutters, blades, adhesives, cameras, and lighting equipment. • Demonstrate proper ergonomics and workstation setup.
9.1.2 Security	•Create and Manage Passwords •Explain risks of phishing and unsafe links •Demonstrate secure login/logout practices
9.1.3 Responsibility	• Follow acceptable use policies • Protect shared devices and files • Report unsafe or suspicious activity appropriately

9.1.4 Prevention	• Apply checklists and routines • Reduce risk through proactive habits • Reflect on safety and security decisions

Industry Vocabulary

- Ergonomics
- PPE (Personal Protective Equipment)
- Digital footprint
- Authentication
- Phishing
- Malware
- Social engineering
- Acceptable Use Policy (AUP)

Vision of the Graduate Alignment

- **Responsible Citizen:** Demonstrates ethical behavior and accountability in physical and digital spaces
- **Effective Communicator:** Reports safety and security concerns clearly and appropriately

Standards Alignment

- ISTE 1.2 Digital Citizen
- OSHA General Industry Awareness (foundational)
- CSTA IC.A

AI Strand (Foundational)

- Understanding data privacy and security as prerequisites for AI systems
- Recognizing how poor data handling impacts automated and AI-driven systems

Equipment Embedded

- Desktop and laptop workstations
- Input devices (mouse, keyboard, tablet)
- Networked systems and accounts

Priority Standard 9.2: Principles + Elements of Design

Students will identify and apply the elements and principles of design to create visually clear and intentional compositions.

Big Ideas

- Design is built from foundational visual components.
- Principles organize elements to guide understanding.
- Visual balance and contrast influence attention.
- Intentional choices improve communication.

Essential Questions

- What are the building blocks of visual design?

- How do principles organize visual information?
- Why do some designs feel clear while others feel confusing?
- How do designers make intentional visual choices?

Learning Outcomes	
9.2.1 Elements	• Identify elements in existing designs • Use elements intentionally in compositions • Explain how elements affect appearance •Identify primary, secondary, and complementary colors.
9.2.2 Principles	• Apply balance and contrast • Create clear focal points •Explain the difference between RGB and CMYK color models. • Evaluate designs using principles
9.2.3 Hierarchy	• Arrange content by importance • Guide viewer attention • Revise layouts to improve clarity
9.2.4 Consistency	• Align objects intentionally • Maintain visual unity

	• Identify inconsistencies and correct them • Describe how color influences emotion and message.
9.2.5 Typography	• Typeface • Font • Readability • Legibility

Industry Vocabulary

- Line, Shape, Color, Texture, Space
- Balance
- Contrast
- Emphasis
- Hierarchy
- Alignment
- Composition

Vision of the Graduate Alignment

- **Creative Thinker:** Uses foundational design concepts to solve visual problems
- **Effective Communicator:** Communicates meaning through visual structure

Standards Alignment

- ISTE 1.6 Creative Communicator
- National Core Arts Standards (VA:Cr1, VA:Cr2)

AI Strand (Foundational)

- Understanding how visual patterns and structure support machine interpretation
- Recognizing the role of labeled visual data in AI systems

Equipment Embedded

- Computers with design software
- Drawing tablets
- Color-calibrated displays

Priority Standard 9.3: Design as Storytelling

Students will use visual design to communicate messages, ideas, and narratives to specific audiences.

Big Ideas

- Design communicates stories without words.
- Audience influences design decisions.
- Visual choices shape emotional response.
- Clear messaging requires intention and planning.

Essential Questions

- How does design tell a story?
- Who is the audience and why does it matter?

- How do visuals influence meaning and emotion?
- What makes a message clear or unclear?

Learning Outcomes	
9.3.1 Audience	• Identify target audiences • Adjust visuals to match audience needs • Explain audience-driven choices
9.3.2 Sequence	• Organize visuals logically • Create visual flow • Evaluate readability and scan paths
9.3.3 Tone	• Use color and imagery to convey mood • Match tone to message • Revise designs for emotional impact
9.3.4 Clarity	• Communicate a single clear message • Remove unnecessary elements • Explain design decisions verbally and in writing

Industry Vocabulary

- **Audience**
- **Purpose**

- **Message**
- **Tone**
- **Mood**
- **Narrative**
- **Visual flow**

Vision of the Graduate Alignment

- **Effective Communicator: Communicates ideas visually to varied audiences**
- **Creative Thinker: Uses design to convey meaning and emotion**

Standards Alignment

- **ISTE 1.6 Creative Communicator**
- **National Core Arts Standards (VA:Cn)**

AI Strand (Foundational)

- **Understanding how audience data influences automated content delivery**
- **Recognizing bias and interpretation in data-driven messaging systems**

Equipment Embedded

- **Design software**
- **Digital image libraries**
- **Presentation displays**

Priority Standard 9.4: File Management

Students will organize, name, store, and retrieve digital files using professional conventions.

Big Ideas

- Organization supports efficiency and accuracy.
- File structure affects collaboration and revision.
- Poor file management causes errors and loss.
- Professional workflows rely on consistency.

Essential Questions

- Why does file organization matter?
- How do naming conventions prevent confusion?
- What happens when files are misplaced or overwritten?
- How do professionals manage revisions?

Learning Outcomes	
9.4.1 Structure	• Create organized folder systems • Store files logically • Navigate directories efficiently
9.4.2 Naming	• Apply consistent naming conventions

	• Distinguish versions clearly • Avoid overwriting files
9.4.3 Versions	• Save incremental revisions • Identify latest versions • Restore previous work when needed
9.4.4 Storage	• Use local and cloud storage appropriately • Back up work consistently • Explain storage choices

Industry Vocabulary

- Directory
- File path
- Version control
- Backup
- Cloud storage
- Local storage

Vision of the Graduate Alignment

- **Responsible Citizen:** Manages digital work responsibly
- **Problem Solver:** Prevents errors through organization

Standards Alignment

- ISTE 1.3 Knowledge Constructor

AI Strand (Foundational)

- Understanding how organized data supports automation and AI workflows

Equipment Embedded

- Networked computers
- Cloud storage systems
- External storage devices

Priority Standard 9.5: Copyright

Students will identify and apply copyright and fair use principles in creative work.

Big Ideas

- Creative work has legal and ethical protections.
- Not all content is free to use.
- Attribution respects creators.
- Ethical choices build professional trust.

Essential Questions

- What is copyright and why does it exist?
- What is fair use?
- How do designers use content ethically?
- What are the consequences of misuse?

Learning Outcomes	
9.5.1 Copyright	• Explain basic copyright concepts • Identify protected works • Describe creator rights
9.5.2 Fair Use	• Determine fair use scenarios • Justify use decisions • Avoid misuse
9.5.3 Attribution	• Credit sources correctly • Document image sources • Model ethical behavior
9.5.4 Licensing	• Identify public domain works • Use licensed resources appropriately • Select safe content sources

Industry Vocabulary

- Copyright
- Fair use
- Attribution
- Public domain
- Licensing
- Creative Commons

Vision of the Graduate Alignment

- **Responsible Citizen:** Respects intellectual property
- **Ethical Thinker:** Makes informed legal decisions

Standards Alignment

- ISTE 1.2 Digital Citizen

AI Strand (Foundational)

- Understanding training data ownership and ethical data use in AI systems

Equipment Embedded

- Internet research tools
- Digital asset libraries

Priority Standard 9.6: Printing Systems & Production Processes

Students will identify basic printing systems and production processes used to create physical design products.

Big Ideas

- Digital designs become physical through production.
- Different systems serve different purposes.
- Preparation affects final quality.
- Errors increase cost and waste.

Essential Questions

- How do digital designs become physical products?
- What printing methods exist?
- Why is preparation important before printing?
- How do production errors affect outcomes?

Learning Outcomes	
9.6.1 Systems	• Identify common printing methods • Match methods to basic purposes • Describe production workflows
9.6.2 Terminology	• Use basic print vocabulary correctly • Identify parts of printed products • Follow instructions accurately
9.6.3 Preparation	• Check files before output • Identify common errors • Apply simple corrections
9.6.4 Quality	• Inspect finished products • Identify defects • Reflect on process improvements

Industry Vocabulary

- Offset printing
- Digital printing
- Resolution
- Bleed
- Trim
- Proof
- Substrate

Vision of the Graduate Alignment

- **Problem Solver:** Anticipates production challenges
- **Effective Communicator:** Follows production specifications

Standards Alignment

- National Core Arts Standards (VA:Cr2)

AI Strand (Foundational)

- Understanding automation in production workflows
- Recognizing quality control systems

Equipment Embedded

- Printers
- Cutting tools
- Finishing equipment

Grade 10 Graphic Design Curriculum

Grade 10 Graphic Design Course Map (Two-Semester Model)

Course Length: Full Year
Structure: 2 Semesters (18–20 weeks each)
Approach: Systems-based progression from professional habits and safety → imaging, typography, layout, vector production, and print finishing, emphasizing accuracy, workflow discipline, critique, and industry readiness

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Semester 1 – Professional Practice, Imaging & Design Foundations

Focus: Safety, employability, raster imaging, color systems, critique, and production accuracy

Unit	Priority Standards	Focus Areas	Estimated Duration
Unit 1: Safe Shop Procedures	10.01	OSHA procedures, SDS, ergonomics, equipment safety	2 weeks
Unit 2: Career Exploration & Portfolio Foundations	10.02	Career pathways, portfolios, resumes, trends, professionalism	2–3 weeks
Unit 3: Raster Imaging (Photoshop)	10.03	Pixels, resolution, layers, masks, non-destructive workflows	4 weeks
Unit 4: Color Theory & Color Systems	10.04	RGB vs CMYK, gamut, palettes, accessibility, proofing	3 weeks

Unit 5: Evaluation, Critique & Revision	10.05	Rubrics, feedback, revision strategy, justification	2–3 weeks
Semester 1 Culminating Experience	Integrated	Raster-based design project with critique, revision, and production readiness	2 weeks

Semester 1 Outcomes

Students will:

- Demonstrate **OSHA-aligned safety practices** across the graphics lab
- Explore **graphic design career pathways** and begin portfolio development
- Create and revise **raster images** using professional workflows
- Apply **color theory** for both screen and print outputs
- Participate in **structured critique** and defend revision decisions using evidence

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Semester 2 – Typography, Layout, Vector Graphics & Print Production

Focus: Typographic systems, layout structure, workflow efficiency, vector production, finishing, and quality control

Unit	Priority Standards	Focus Areas	Estimated Duration
Unit 6: Keyboarding & Workflow Efficiency	10.06	Accuracy, shortcuts, ergonomics, productivity habits	2 weeks
Unit 7: Typography – Characters & Paragraphs	10.07	Typographic anatomy, kerning, leading, readability, classification	3 weeks
Unit 8: Copywriting for Design	10.08	Tone, headlines, calls to action, scannability, proofreading	2–3 weeks
Unit 9: Typography – Layout & Design	10.09	Grid systems, hierarchy, styles, scan paths, layout conventions	3–4 weeks

Unit 10: Vector Graphics & Production Preparation	10.10	Paths, anchors, outlines, preflight, output requirements	3–4 weeks
Unit 11: Printing Systems – Finishing & Binding	10.11	Bleed, imposition, binding, trimming, quality control	2–3 weeks
Semester 2 Culminating Experience	Integrated	End-to-end production project (layout → vector prep → print finishing)	2–3 weeks

Semester 2 Outcomes

Students will:

- Increase efficiency through **keyboarding and shortcut fluency**
- Apply **professional typography systems** for readability and hierarchy
- Write and revise **copy aligned to audience and purpose**
- Create **structured layouts** using grids, styles, and scan paths
- Prepare **vector graphics** for multiple output devices
- Complete **finished print products** using professional finishing methods
- Inspect work using **defined quality and production standards**

Year-at-a-Glance Summary

Semester	Primary Emphasis
Semester 1	Safety, careers, raster imaging, color, critique
Semester 2	Typography, layout, vector graphics, production & finishing

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Assessment & Evidence (Across Both Semesters)

- OSHA safety assessments and equipment demonstrations
- Portfolio artifacts with written reflections
- Raster image editing and compositing projects

- Color proof comparisons (screen ↔ print)
- Structured critiques and revision documentation
- Typographic system and layout projects
- Vector production files with preflight checklists
- Finished printed products with quality inspection rubrics

Grade 10 → Grade 11 Transition

This course map intentionally prepares students for **Grade 11 Graphic Design** by building:

- Strong **workflow discipline and production accuracy**
- Typography and layout fluency required for advanced projects
- Vector preparation skills for specialized equipment
- Professional critique, revision, and documentation habits
- Portfolio-ready artifacts aligned to industry expectations

CTECS Graphic Design (Grade 10) — Priority Standards

Grade 10 Priority Standards (CTECS)

- 10.01 Safe Shop Procedures
- 10.02 Career Exploration
- 10.03 Raster Images
- 10.04 Color Theory
- 10.05 Evaluation & Critique
- 10.06 Keyboarding
- 10.07 Typography – Characters & Paragraphs
- 10.08 Copy Writing
- 10.09 Typography – Layout & Design

- 10.10 Vector Images
- 10.11 Printing Systems – Finishing & Binding

Grade 10 — Credentials, Pacing & Testing Points (where to assess)

Credential	Aligns to Priority Standards (Grade 10)	Recommended Testing Point (within Grade 10)
OSHA 10 – General Industry	10.01	End of 10.01 (safety test + equipment performance checks)
Adobe Certified Professional – Photoshop	10.03 (reinforced by 10.04, 10.05)	After 10.03 (or after 10.04 if strengthening print color readiness)
Adobe Certified Professional – Illustrator	10.10 (reinforced by 10.04, 10.09)	After 10.10 (vector production task + exam window)
Adobe Certified Professional – InDesign	10.07, 10.09, 10.11	After 10.09 (layout mastery) or after 10.11 (layout + prepress/production)

Grade 10 — Equipment Integration (embedded by standard)

Core equipment embedded across Grade 10:

- Embroidery machine (vector → stitch workflow)
- Laser engraver (vector → engrave/cut workflow)
- VR headsets (immersive critique, presentation, client-preview simulation)
- Printers: sublimation, latex (wide-format), high-volume Fiery-driven production printing
- Bindery & finishing: cutters/trimmers, folders, stitchers, laminators

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AI Strand (embedded across Grade 10)

Students learn AI foundations and **create their own simple models** using: **collect → label → train → test → evaluate → revise**. Models are used to support design decisions

(classification, readability, contrast, quality-control) while students analyze limitations and error types.

Priority Standard 10.01: Safe Shop Procedures

Students will demonstrate OSHA-aligned safe shop procedures, hazard awareness, and safe operation practices for graphics production tools and equipment.

Big Ideas

1. Safety is a professional requirement with compliance expectations.
2. Hazard recognition and documentation prevent injury and downtime.
3. Safe procedures apply across all production equipment.

Essential Questions

1. Why is “no-error” the expectation for safety knowledge?
2. How do SDS and hazard communication prevent harm?
3. How do procedures protect people, products, and workflow?

Learning Outcomes

Students will know	Students will be able to do
10.1.1 OSHA	• Explain OSHA’s purpose in worker protection • Apply OSHA-aligned shop procedures consistently • Demonstrate mastery on a safety assessment
10.1.2 SDS	• Locate SDS for shop materials • Interpret hazards and first-aid guidance • Apply correct storage and disposal steps
10.1.3 Ergonomics	• Set up a workstation to reduce strain • Demonstrate safe posture and handling • Apply break and stretch routines during production

Students will know	Students will be able to do
	• Apply safety procedures specific to cutters, printers, bindery, and alternative output devices.

Industry Vocabulary

OSHA, SDS, GHS, HAZCOM, PPE, ergonomics, ventilation, pinch-point, lockout, spill-kit

Vision of the Graduate Alignment

- Work Ready
- Respectful
- A Critical Thinker

Standards Alignment (modeled after MA format)

- Safety & Health
- Digital Literacy (as applicable to equipment/software systems)

AI Strand

Students build a hazard-label dataset (safe vs. unsafe conditions), train a basic classifier, and evaluate false positives/negatives to understand reliability.

Equipment Embedded

Embroidery machine; laser engraver; cutters/trimmers; sublimation systems; latex printer; high-volume Fiery printing workflow; bindery equipment.

Priority Standard 10.02: Career Exploration

Students will explore graphics career pathways and build foundational employability artifacts aligned to industry expectations.

Big Ideas

1. Graphics careers span design, production, and digital communication roles.
2. Communication and professionalism are essential for client and team trust.
3. Credentials and portfolios provide evidence of readiness.

Essential Questions

1. What roles exist across print, digital, and production workflows?
2. Which skills and credentials match different pathways?
3. How does a portfolio demonstrate growth and readiness?

Learning Outcomes

Students will know	Students will be able to do
10.2.1 Portfolio	• Curate work samples aligned to a target role • Write short reflections describing process decisions • Organize artifacts for review and revision
10.2.2 Resume	• Draft a resume highlighting trade skills and habits • Revise language for clarity and specificity • Align resume content to a job posting
10.2.3 Trends	• Identify trend themes affecting graphics work • Explain how trends shift tools and workflows • Connect trends to credential pathways

Industry Vocabulary

portfolio, resume, client, deliverable, internship, specialization, workflow, professionalism, credential

Vision of the Graduate Alignment

- Work Ready
- An Effective Communicator
- A Problem Solver

Standards Alignment

- Role of Professionals in Society
- Employability Skills

AI Strand

Students label job postings by skill keywords and build a simple clustering model to identify role groupings and emerging skills.

Equipment Embedded

VR headsets for career immersion and presentation practice.

Priority Standard 10.03: Raster Images

Students will create, edit, and prepare raster images using non-destructive workflows suitable for print and digital output.

Big Ideas

1. Raster quality depends on pixels and resolution choices.
2. Professional editing is non-destructive through layers, masks, and adjustments.
3. Output success depends on correct formats and export settings.

Essential Questions

1. Why do raster images lose quality when enlarged?
2. How do layers and masks support revision cycles?
3. What export settings make a raster file ready for print vs. screen?

Learning Outcomes

Students will know	Students will be able to do
10.3.1 Pixels	• Explain pixel-based image structure • Check pixel dimensions for output needs

Students will know	Students will be able to do
	• Predict quality changes when scaling • Evaluate raster images for print versus digital readiness. • Correct image quality issues prior to production.
10.3.2 Layers	• Build organized multi-layer documents • Name and group layers for workflow efficiency • Use adjustment layers non-destructively • Capture or select images appropriate to project constraints.
10.3.3 Masks	• Isolate subjects with masking workflows • Blend images into composites cleanly • Refine edges for realistic transitions

Industry Vocabulary

pixel, resolution, PPI, PSD, layer, mask, selection, composite, retouch, export

Vision of the Graduate Alignment

- A Problem Solver
- A Critical Thinker
- Work Ready

Standards Alignment

- Fundamentals of Design
- Designing with Software
- Optimizing Output for Print and Digital Media

AI Strand

Students create a labeled dataset of image assets (portrait, product, texture), train a classifier for asset organization, and evaluate accuracy and bias.

Equipment Embedded

Scanners, cameras, tablets for asset capture; proofing printers for output checks.

Priority Standard 10.04: Color Theory

Students will apply color systems, modes, and harmonies to create consistent, accessible, output-appropriate designs.

Big Ideas

1. Screen color and print color behave differently.
2. Harmony systems guide purposeful palettes.
3. Accessibility and culture influence color decisions.

Essential Questions

1. Why do colors shift from screen to print?
2. How does harmony influence emotion and hierarchy?
3. How do we ensure accessible contrast?

Learning Outcomes

Students will know	Students will be able to do
10.4.1 RGB	• Set documents for screen outputs • Explain additive color behavior • Export digital-ready files
10.4.2 CMYK	• Set documents for print outputs • Explain subtractive color behavior • Export print-ready files
10.4.3 Gamut	• Identify out-of-gamut color risks

Students will know	Students will be able to do
	• Adjust palettes for print realism • Compare proofs and revise decisions
10.4.4 Color Theory	• Apply color contrast standards for readability and accessibility. • Build and justify color palettes using harmony systems. • Revise color choices based on proofing feedback.

Industry Vocabulary

RGB, CMYK, gamut, Pantone, palette, swatch, contrast, proof, profile

Vision of the Graduate Alignment

- A Critical Thinker
- An Effective Communicator
- Work Ready

Standards Alignment

- Fundamentals of Design
- Optimizing Output for Print and Digital Media
- Alternative Output Devices

AI Strand

Students build a contrast-check model or ruleset, test it on real designs, and revise thresholds to reduce false flags.

Equipment Embedded

Latex printers, sublimation systems, high-volume Fiery workflow for proofing and color consistency.

Priority Standard 10.05: Evaluation & Critique

Students will evaluate, critique, and revise design work using objective criteria aligned to project goals and industry expectations.

Big Ideas

1. Critique is evidence-based and criteria-driven.
2. Feedback enables iteration and improvement.
3. Designers must articulate choices and revise strategically.

Essential Questions

1. What makes feedback objective and actionable?
2. How does critique strengthen outcomes?
3. How do we choose revisions that matter most?

Learning Outcomes

Students will know	Students will be able to do
10.5.1 Rubric	• Apply rubric criteria to evaluate work • Self-assess before submitting • Prioritize revisions based on criteria
10.5.2 Feedback	• Provide specific, actionable critique • Receive feedback professionally • Document feedback for revision planning
10.5.3 Revision	• Execute targeted revision passes • Compare drafts to show improvement • • Explain how revisions improved communication Deliver structured, criteria-based critiques orally and in writing. • Document feedback and plan revision steps. • Defend design decisions using evidence

Industry Vocabulary

critique, objective, criteria, iteration, rubric, rationale, feedback, revision

Vision of the Graduate Alignment

- A Critical Thinker
- Skilled Socially
- An Effective Communicator

Standards Alignment

- The Design Process
- Employability Skills

AI Strand

Students label critique comments by category (type, color, layout) and train a simple classifier to sort feedback into revision buckets.

Equipment Embedded

VR headsets for immersive critique, review, and presentation practice.

Priority Standard 10.06: Keyboarding

Students will build keyboarding and shortcut fluency to increase speed, accuracy, and ergonomic sustainability in graphics workflows.

Big Ideas

1. Speed and accuracy increase productivity.
2. Shortcuts reduce time and errors.
3. Ergonomics supports long-term health.

Essential Questions

1. How do shortcuts increase efficiency?
2. How does accuracy prevent production errors?

3. What habits prevent repetitive strain?

Learning Outcomes

Students will know	Students will be able to do
10.6.1 Accuracy	• Enter text precisely in design contexts • Proof text before output • Correct errors efficiently
10.6.2 Shortcuts	• Use core OS shortcuts consistently • Use application hotkeys during tasks • Reduce mouse-dependence in workflow challenges
10.6.3 Posture	• Adjust workstation for healthy posture • Use break and stretch routines • Identify and correct high-strain habits

Industry Vocabulary

WPM, accuracy, shortcuts, workflow, ergonomics, RSI

Vision of the Graduate Alignment

- Work Ready
- A Critical Thinker
- A Problem Solver

Standards Alignment

- Digital Literacy
- Employability Skills

AI Strand

Students collect their own timing dataset and train a simple model to predict time saved from shortcut adoption.

Equipment Embedded

Workstations, keyboards/mice, tablets; ergonomic setup.

Priority Standard 10.07: Typography — Characters & Paragraphs

Students will apply typographic anatomy and spacing controls to create legible, readable, and professional text systems.

Big Ideas

1. Typography is the visual form of language.
2. Spacing controls readability.
3. Formatting improves comprehension.

Essential Questions

1. How does type choice change tone?
2. Why does spacing matter?
3. What paragraph rules improve readability?

Learning Outcomes

Students will know	Students will be able to do
10.7.1 Anatomy	• Label key letterform parts • Select type based on legibility needs • Explain anatomy's impact on readability
10.7.2 Kerning	• Identify awkward letter pairs • Adjust kerning for optical balance • Compare before and after spacing quality
10.7.3 Leading	• Set leading for body copy readability • Adjust spacing to improve flow • Format paragraphs for clean rhythm

Students will know	Students will be able to do
10.7.4 Typeface Classification	• Classify typefaces using standard categories (e.g., serif, sans serif, script, display). • Select appropriate typeface classifications based on audience, purpose, and medium. • Justify typeface choices using professional typography terminology.
10.7.5 Readability Principles	• Evaluate text for readability using spacing, size, and contrast criteria. • Adjust kerning, leading, and alignment to improve legibility and reading flow. • Compare typographic treatments and explain which version communicates more effectively.
10.7.6 Typographic purpose	• Analyze how typography communicates tone, hierarchy, and emphasis. • Match typographic choices to message intent (inform, persuade, direct). • Defend typographic decisions based on audience needs and design goals.

Industry Vocabulary

baseline, x-height, kerning, tracking, leading, alignment, widow, orphan

Vision of the Graduate Alignment

- An Effective Communicator
- A Critical Thinker
- Work Ready

Standards Alignment

- Fundamentals of Design

- The Design Process

AI Strand

Students label samples as easy, medium, hard to read and train a simple readability model based on typography variables.

Equipment Embedded

Proof printers and screen checks.

Priority Standard 10.08: Copy Writing

Students will write, edit, and proof copy aligned to audience, purpose, and design constraints, including calls to action.

Big Ideas

1. Copy and visuals must align.
2. Clarity drives impact.
3. Proofreading protects credibility.

Essential Questions

1. How does tone shift by audience?
2. What makes copy scannable?
3. What makes an ethical call to action?

Learning Outcomes

Students will know	Students will be able to do
10.8.1 Tone	• Adapt tone to match audience • Rewrite copy in multiple tones • Explain tone choices using purpose
10.8.2 Headline	• Draft multiple headline options • Select headlines using criteria

Students will know	Students will be able to do
	• Edit headlines for brevity and strength
10.8.3 CTA	• Identify CTAs in examples • Write CTAs aligned to desired action • Revise CTAs for clarity and specificity

Industry Vocabulary

tone, headline, CTA, microcopy, scannability, proofreading

Vision of the Graduate Alignment

- An Effective Communicator
- Work Ready
- A Critical Thinker

Standards Alignment

- The Design Process
- Project Management
- Employability Skills

AI Strand

Students train a classifier labeling copy as inform, persuade, alert, then revise text based on misclassifications.

Equipment Embedded

Printers for proofing; VR optional for audience testing.

Priority Standard 10.09: Typography — Layout & Design

Students will create layouts using typographic hierarchy, grid systems, and consistent styles to organize information for print and digital media.

Big Ideas

1. Grids create structure.
2. Hierarchy guides attention.
3. Styles create consistency.

Essential Questions

1. How does a grid improve organization?
2. How does hierarchy guide reading?
3. How do styles increase efficiency?

Learning Outcomes

Students will know	Students will be able to do
10.9.1 Grid	• Set margins, columns, and gutters • Align elements to a grid structure • Use whitespace to separate content
10.9.2 Hierarchy	• Create levels of typographic importance • Fix competing focal points • Test scan paths and revise
10.9.3 Styles	• Create paragraph and character styles • Apply styles consistently • Update styles to revise documents efficiently
10.9.4 Scan Paths	• Analyze how viewers visually navigate a layout using common scan patterns (e.g., Z-pattern, F-pattern). • Design layouts that intentionally guide viewer attention through hierarchy and alignment. • Revise layouts to improve clarity and reading flow based on observed scan paths.

Students will know	Students will be able to do
10.9.5 Layout Conventions	• Identify standard layout conventions used in print and digital media (e.g., margins, columns, alignment). • Apply layout conventions appropriately based on format, audience, and purpose. • Evaluate layouts for consistency and usability using professional design criteria.

Industry Vocabulary

grid, gutter, margin, hierarchy, styles, whitespace

Vision of the Graduate Alignment

- A Problem Solver
- An Effective Communicator
- A Critical Thinker

Standards Alignment

- Fundamentals of Design
- Designing with Software
- Optimizing Output for Print and Digital Media

AI Strand

Students label layouts as clear or confusing and train a simple model to predict clarity, then revise layouts to improve predicted clarity.

Equipment Embedded

VR review and proof printers.

Priority Standard 10.10: Vector Images

Students will create and prepare vector graphics using paths and production-ready workflows for output devices such as plotters, embroidery, and engraving.

Big Ideas

1. Vectors scale because they are path-based.
2. Anchor control creates precision.
3. Production requires outlined text and clean paths.

Essential Questions

1. When do we need vector instead of raster?
2. Why do clean paths matter for machines?
3. How do outlines prevent errors?

Learning Outcomes

Students will know	Students will be able to do
10.10 .1 Paths	• Create closed paths for production • Combine shapes using boolean tools • Export vectors in appropriate formats
10.10.2 Anchors	• Manipulate anchors and handles precisely • Reduce anchors for smooth curves • Trace complex shapes accurately
10.10.3 Outlines	• Convert type to outlines • Expand appearance when required • Preflight artwork for device output
10.10.4 Output requirements	• Identify output requirements for different production devices (e.g., printer, plotter, laser engraver, embroidery).

Students will know	Students will be able to do
	• Select appropriate file formats, color modes, and resolution settings based on output needs. • Explain how output requirements affect design and file preparation decisions.
10.10.5 Preflight Concepts	• Conduct a preflight check to identify common production errors (missing fonts, incorrect color modes, open paths). • Correct file issues prior to output to prevent production failures. • Document preflight findings and revisions using professional terminology.
10.10.6 Production tolerances	• Explain how production tolerances (bleed, trim, stroke weight, alignment) impact final output quality. • Adjust vector artwork to meet tolerance requirements for specific equipment. • Evaluate finished products to determine whether tolerances were met and recommend corrections if needed.

Industry Vocabulary

anchor, bezier, path, stroke, fill, outline, expand, SVG

Vision of the Graduate Alignment

- A Problem Solver
- Work Ready
- A Critical Thinker

Standards Alignment

- Fundamentals of Design

- Designing with Software
- Alternative Output Devices

AI Strand

Students label vector files as production-ready or not-ready and train a readiness classifier, then revise files that fail.

Equipment Embedded

Embroidery machine; laser engraver; plotter or vinyl cutter.

Priority Standard 10.11: Printing Systems — Finishing & Binding

Students will complete professional print products by applying trimming, folding, binding, and finishing methods with attention to safety, quality, and function.

Big Ideas

1. Finishing determines professional quality.
2. Binding depends on function and geometry.
3. Precision and safety are non-negotiable.

Essential Questions

1. How do bleed and trim affect quality?
2. Which binding fits the product purpose?
3. How do finishing errors affect cost and time?

Learning Outcomes

Students will know	Students will be able to do
10.11.1 Bleed	• Set up files with correct bleed and crop marks • Inspect proofs for trim safety • Correct layouts to prevent edge errors

Students will know	Students will be able to do
10.11.2 Imposition	• Build folding dummies to verify page order • Arrange pages for correct sequence • Identify and correct imposition errors
10.11.3 Binding	• Select binding methods by use and page count • Assemble finished products consistently • Evaluate durability and refine choices
10.11.4 Finishing methods	• Select appropriate finishing methods (e.g., trimming, folding, laminating, binding) based on product purpose and use. • Apply finishing techniques accurately while following safety and equipment procedures. • Compare finished products to identify how finishing choices impact function, durability, and appearance.
10.11.5 quality Standards	• Inspect finished print products using defined quality criteria (alignment, trim accuracy, consistency). • Identify defects and explain their causes within the production process. • Recommend corrective actions or process adjustments to improve product quality.

Industry Vocabulary

bleed, trim, crop-marks, imposition, signature, saddle-stitch, laminate, score

Vision of the Graduate Alignment

- Work Ready

- A Problem Solver
- A Critical Thinker

Standards Alignment

- Optimizing Output for Print and Digital Media
- Alternative Output Devices
- Safety and Health

AI Strand

Students build a defect-detection dataset (mis-trim, skew, cracked fold) and train a simple classifier to understand quality-control concepts.

Equipment Embedded

Bindery cutters, folders, stitchers, laminators; sublimation output; latex wide-format; high-volume Fiery workflow; embroidery finishing.

Grade 11 Graphic Design Curriculum

Grade 11 Graphic Design Course Map (Two-Semester Model)

Course Length: Full Year
Structure: 2 Semesters (18–20 weeks each)
Approach: Advanced production-focused progression emphasizing machine safety, digital media systems, cross-software workflows, professional communication, cost analysis, color management, advanced printing, and emerging visualization practices

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Semester 1 – Production Systems, Digital Media & Professional Communication

Focus: Equipment safety, digital media foundations, cross-software workflows, business communication, and image correction

Unit	Priority Standards	Focus Areas	Estimated Duration
Unit 1: Machine Safety & Preventative Maintenance	11.01	OSHA systems, lockout/tagout, machine safety, maintenance documentation	2–3 weeks
Unit 2: Digital Media Foundations (UI/UX)	11.02	Responsive design, accessibility, file optimization, audience testing	4 weeks
Unit 3: Digital Graphics & Cross-Software Workflows	11.03	Photoshop–Illustrator–InDesign workflows, nondestructive editing, preflight	3–4 weeks
Unit 4: Career Readiness – Business Communication	11.04	Creative briefs, professional writing, critique protocols, approvals	2–3 weeks
Unit 5: Image Editing & the Pixel	11.05	Histograms, color correction, compositing, ethical retouching	3 weeks

Semester 1 Culminating Experience	Integrated	Client-style digital media project with workflow documentation and critique	2 weeks

Semester 1 Outcomes

Students will:

- Apply **advanced machine safety and maintenance procedures**
- Design digital media that functions across **devices and platforms**
- Execute **cross-software production workflows**
- Communicate professionally through **briefs, rationales, and critiques**
- Perform **ethical, nondestructive image correction**
- Deliver production-ready files with **documented workflows**

Semester 2 – Color Reproduction, Printing Systems, Costing & Visualization

Focus: Vector precision, color management, print systems, cost estimation, and 3D visualization

Unit	Priority Standards	Focus Areas	Estimated Duration
Unit 6: Vector Graphics & Brand Systems	11.06	Bezier logic, brand consistency, logo standards, asset systems	3–4 weeks
Unit 7: Color Reproduction & Management	11.07	RGB/CMYK conversion, ICC profiles, spot vs process, proofing	3 weeks
Unit 8: Advanced Printing Systems	11.08	Offset, digital, wide-format workflows, prepress, variable data	3 weeks
Unit 9: Estimating & Communicating Costs	11.09	Cost components, quotes, scope control, value engineering	2–3 weeks

Unit 10: Basic 3D Modeling & Visualization	11.10	3D space, topology, rendering, client previews	3 weeks
Semester 2 Culminating Experience	Integrated	Multi-output production project with cost analysis and presentation	2–3 weeks

Semester 2 Outcomes

Students will:

- Build **production-ready vector systems** aligned to brand standards
- Manage **color consistency** across screen, print, and devices
- Select and execute **appropriate printing workflows**
- Estimate and communicate **job costs and scope changes**
- Create **3D visualizations** to support design planning and client approval
- Defend technical and financial decisions using **industry evidence**

Year-at-a-Glance Summary

Semester	Primary Emphasis
Semester 1	Safety systems, digital media, workflows, communication
Semester 2	Vector systems, color, print production, costing, visualization

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Assessment & Evidence (Across Both Semesters)

- Machine safety and maintenance logs
- Responsive digital media projects with accessibility validation
- Cross-software production files with preflight checks
- Creative briefs, professional emails, and critique documentation
- Image correction and ethical retouching projects
- Brand-aligned vector systems and logo usage audits

- Print proofs, color reports, and production evaluations
- Cost estimates, invoices, and scope documentation
- 3D visualizations integrated into professional presentations

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Grade 11 → Grade 12 Transition

This course map intentionally prepares students for **Grade 12 Graphic Design** by building:

- Enterprise-level **production discipline**
- Advanced **print, color, and workflow expertise**
- Cost-aware design decision-making
- Client-facing communication and documentation
- Visualization skills to support **capstone-level work**

CTECS Graphic Design – Grade 11 Curriculum

Priority Standard 11.01: Machine Safety & Maintenance

Big Ideas

1. Workplace safety is a shared responsibility supported by systems and procedures.
2. Preventative maintenance increases equipment lifespan and reduces risk.
3. Documentation ensures accountability and regulatory compliance.

Essential Questions

1. How do safety systems and procedures protect people and equipment?
2. Why is preventative maintenance critical in a professional shop environment?
3. How does documentation support safety and compliance?

Students will know	Students will be able to do
11.1.1 OSHA and shop safety regulations	• Explain OSHA's role in worker protection • Apply OSHA aligned shop procedures consistently• Demonstrate mastery on safety assessments
11.1.2 Preventative maintenance principles	• Perform routine preventative maintenance • Identify consumables and wear indicators• Document maintenance actions accurately
11.1.3 Machine safety systems	• Locate and test emergency stops and interlocks • Identify pinch points and hazards• Apply lock-out/tag-out procedures correctly

Industry Vocabulary

OSHA, lock-out/tag-out (LOTO), preventative maintenance, reactive maintenance, interlock, emergency stop, pinch point, point of operation, SOP, calibration, consumables, service log

Vision of the Graduate Alignment

- Work Ready
- A Critical Thinker
- Respectful

AI Strand

Students build a **maintenance log dataset** (normal operation vs. fault conditions), train a basic classifier to flag potential maintenance risks, and analyze false positives to understand system reliability and limits in safety prediction.

Equipment Embedded

- High volume production printers (Fiery workflows)
- Wide format printers
- Laser engraver

- Embroidery machine
- Bindery equipment (cutters, folders, stitchers)

Priority Standard 11.02: Digital Media Foundations

Big Ideas

1. Digital media must function effectively across devices and platforms.
2. User experience influences how information is understood and used.
3. File optimization balances quality, accessibility, and performance.

Essential Questions

1. How does digital design change across devices and platforms?
2. What makes a digital experience usable and accessible?
3. How do designers choose the right format and compression?

Students will know	Students will be able to do
11.2.1 Responsive design principles	• Create assets for multiple screen sizes • Adjust layouts at defined breakpoints• Test designs across devices
11.2.2 UI/UX fundamentals	• Build wireframes and basic prototypes • Apply accessibility standards (WCAG)• Evaluate usability through peer testing
11.2.3 Digital file optimization concepts	• Select appropriate digital formats • Compress assets without quality loss• Export platform ready files
11.2.4 User-Centered design principles	• Analyze user needs and goals to inform digital design decisions. • Apply user-centered design principles to improve usability and clarity.

Students will know	Students will be able to do
	• Justify design choices based on identified user needs and intended outcomes.
11.2.5 Audience Testing methods	• Select appropriate audience testing methods (e.g., surveys, usability tasks, feedback sessions) for a given project. • Collect and interpret audience feedback to identify strengths and areas for improvement. • Revise digital designs based on documented testing results and user input.
11.2.6 Accessibility validation practices	• Evaluate digital designs for accessibility using established guidelines (e.g., contrast, readability, navigation). • Identify accessibility barriers that may limit user access or comprehension. • Implement design revisions to improve accessibility and document validation results.

Industry Vocabulary

UI, UX, responsive design, breakpoint, wireframe, prototype, accessibility (WCAG), aspect ratio, SVG, WebP, metadata, compression

Vision of the Graduate Alignment

- An Effective Communicator
- A Problem Solver
- Work Ready

AI Strand

Students label digital assets by **device type, format, and accessibility features**, train a

model to predict optimal formats, and revise assets when misclassified to improve usability outcomes.

Equipment Embedded

- Student workstations (multi-resolution displays)
- Mobile devices for cross platform testing
- Proofing printers
- VR headsets for immersive UX review

Priority Standard 11.03: Intro to Digital Graphics

Big Ideas

1. Professional design relies on efficient, connected workflows.
2. Non-destructive editing preserves flexibility and quality.
3. Output requirements determine technical design decisions.

Essential Questions

1. How do designers choose the right software for a task?
2. Why are non-destructive workflows essential in professional design?
3. How do output requirements influence design decisions?

Students will know	Students will be able to do
11.3.1 Cross software workflows (PS, AI, ID)	• Move assets between Adobe applications • Use linked files and smart objects• Package files for handoff or production
11.3.2 Non-destructive editing principles	• Build non-destructive composites

Students will know	Students will be able to do
	• Manage versions and revisions• Reduce rework through smart workflows
11.3.3 Output specific file requirements	• Export assets for print, web, and motion • Adjust specs based on output method• Verify files using preflight checks
11.3.4 Workflow selection criteria	• Analyze project requirements to determine appropriate software and production workflows. • Select workflows based on output format, timeline, and production constraints. • Justify workflow choices using efficiency, quality, and compatibility criteria.
11.3.5 Production constraints	• Identify production constraints such as time, budget, equipment limits, and output specifications. • Modify design decisions to accommodate identified production constraints. • Explain how production constraints influence workflow, materials, and final output.
11.3.6 File Hand-off standards	• Prepare files for hand-off using industry-standard naming, packaging, and documentation practices. • Verify that files meet technical requirements for collaborators or production teams. • Document file specifications and instructions to support accurate and efficient production.

Industry Vocabulary

Raster, vector, layout software, smart object, linked file, non-destructive editing, preflight, export settings, bleed, safe area

Vision of the Graduate Alignment

- A Critical Thinker
- A Problem Solver
- Work Ready

AI Strand
Students classify project files as **production ready vs. Revision required**, train a readiness model, and revise workflows to reduce failure rates in preflight checks.

Equipment Embedded

- Adobe Creative Cloud workstations
- Production printers (preflight + proofing)
- Scanners and cameras for asset integration

Priority Standard 11.04: Career Readiness – Business Communication

Big Ideas

1. Clear communication is essential to successful design projects.
2. Documentation reduces misunderstanding and scope creep.
3. Professional critique improves design quality and collaboration.

Essential Questions

1. How do designers translate client needs into clear requirements?
2. Why is professional documentation critical in design work?
3. How does critique support growth and collaboration?

Students will know	Students will be able to do
11.4.1 Components of a creative brief	• Conduct client intake and discovery • Write clear creative briefs and specs• Translate client needs into requirements
11.4.2 Professional communication standards	• Compose professional emails and documentation • Write rationales explaining design decisions• Maintain professional tone and clarity
11.4.3 Revision and critique protocols	• Present work and receive critique respectfully • Provide actionable feedback• Revise work based on documented feedback
11.4.4 Project Milestones	• Define clear project milestones aligned to scope, timeline, and deliverables. • Create project plans that include milestone dates and review points. • Monitor progress toward milestones and adjust plans as needed to stay on schedule.
11.4.5 Approval Workflows	• Identify required approval stages within a design project workflow. • Follow established approval workflows to obtain feedback and authorization. • Document approvals and required changes using professional communication practices.
11.4.6 Revision Check points	• Establish revision checkpoints within a project timeline. • Evaluate feedback at revision checkpoints to determine necessary changes.

Students will know	Students will be able to do
	• Implement revisions efficiently while maintaining project goals and deadlines.

Industry Vocabulary

Creative brief, scope, deliverables, stakeholder, professional tone, rationale, revision cycle, feedback, change order, client presentation

Vision of the Graduate Alignment

- An Effective Communicator
- Skilled Socially
- Work Ready

AI Strand

Students label professional communications by **purpose and tone**, train a classifier to identify unclear or misaligned messaging, and revise documentation to improve professional clarity.

Equipment Embedded

- Workstations
- Presentation displays
- VR headsets for simulated client presentations

Priority Standard 11.05: Image Editing & the Pixel

Big Ideas

1. Pixel based images are built from data that must be managed carefully.
2. Accurate correction improves image quality and consistency.
3. Ethical editing preserves trust and integrity.

Essential Questions

1. How does pixel data affect image quality?
2. Why are histograms essential for image correction?
3. What makes image editing ethical?

Students will know	Students will be able to do
11.5.1 Pixel based image structure	• Interpret histograms for tonal correction • Apply levels and curves adjustments• Correct color casts accurately
11.5.2 Histo-gramdriven correction methods	• Create advanced selections and masks • Build realistic composites• Preserve editability using non-destructive methods
11.5.3 Ethical retouching standards	• Retouch images ethically • Identify misleading manipulations• Export images to specification

Industry Vocabulary

Pixel, resolution, histogram, levels, curves, masking, compositing, non-destructive editing, color cast, retouching ethics

Vision of the Graduate Alignment

- A Critical Thinker
- A Problem Solver
- Work Ready

AI Strand

Students build a dataset of corrected vs. uncorrected images, train a model to predict correction needs, and analyze ethical limits of automated image evaluation.

Equipment Embedded

- High resolution monitors
- Cameras and scanners
- Proofing printers

Priority Standard 11.06: Vector Graphics

Big Ideas

1. Vector graphics rely on mathematical precision.
2. Clean construction is required for production output.
3. Consistent vector systems support branding.

Essential Questions

1. Why is precision critical in vector design?
2. How do vectors differ from pixel based images in production?
3. What makes a vector file production ready?

Students will know	Students will be able to do
11.6.1 Bezier curve and path logic	• Use the pen tool with precision • Optimize anchor point placement• Construct clean paths
11.6.2 Boolean construction methods	• Construct complex shapes using boolean tools • Combine and refine vector forms• Troubleshoot path errors
11.6.3 Production ready vector requirements	• Outline fonts and expand appearance • Preflight vector files• Export vectors for cutting and printing
11.6.4 Brand Consistency Principles	• Analyze brand guidelines to identify required visual standards and constraints.

Students will know	Students will be able to do
	• Apply brand consistency principles across multiple design deliverables. • Evaluate designs for consistency in color, typography, imagery, and layout.
11.6.5 Logo Usage Standards	• Apply logo usage standards including size, clear space, placement, and color variations. • Identify and correct improper logo use in design samples. • Justify logo placement and treatment based on brand guidelines and context.
11.6.6 Asset Systems	• Organize design assets using structured naming and storage conventions. • Develop reusable asset systems that support consistent branding across projects. • Maintain and update asset systems to support collaborative and production workflows.

Industry Vocabulary

Bezier curve, anchor point, path, stroke, fill, boolean operations, compound path, outline fonts, expand appearance, SVG

Vision of the Graduate Alignment

- A Problem Solver
- A Critical Thinker
- Work Ready

AI Strand

Students label vector files as **production ready or machine errorprone**, train a classifier, and revise anchor structures to improve output reliability.

Equipment Embedded

- Laser engraver
- Embroidery machine
- Vinyl cutter / plotter
- Wide format printers

Priority Standard 11.07: Color Reproduction

Big Ideas

1. Color behaves differently across devices and media.
2. Color management systems ensure consistency.
3. Accurate color supports brand integrity.

Essential Questions

1. Why do colors shift between screen and print?
2. How do color profiles manage consistency?
3. When should spot colors be used?

Students will know	Students will be able to do
11.7.1 RGB and CMYK color systems	• Convert RGB designs to CMYK accurately • Adjust palettes for gamut limits• Predict color shifts
11.7.2 ICC profiles and calibration concepts	• Apply ICC profiles correctly • Soft proof designs• Calibrate and evaluate output devices
11.7.3 Spot vs process color use	• Select spot colors for branding

Students will know	Students will be able to do
	• Maintain color consistency across media• Verify printed proofs
11.7.4 Brand Color Standards	• Apply brand color standards consistently across print and digital design assets. • Select appropriate color values (RGB, CMYK, spot) based on brand guidelines and output method. • Evaluate designs to ensure adherence to documented brand color specifications.
11.7.5 Color Consistency Metrics	• Measure color consistency using defined metrics (proofs, swatches, on-screen comparisons). • Identify color variation issues caused by devices, materials, or workflows. • Adjust files or processes to improve color consistency across outputs.
11.7.6 Client Approval Process	• Prepare color proofs and documentation for client or stakeholder review. • Communicate color decisions and revisions clearly during the approval process. • Document approvals and required changes to ensure accurate final production.

Industry Vocabulary

RGB, CMYK, color gamut, ICC profile, calibration, soft proofing, spot color, process color, Pantone, color consistency

Vision of the Graduate Alignment

- A Critical Thinker
- An Effective Communicator
- Work Ready

AI Strand
Students train a model using **screen to print comparison data** to predict color shifts and revise profiles to minimize deviation.

Equipment Embedded

- Calibrated monitors
- Fiery driven production printers
- Wide format printers
- Proofing systems

Priority Standard 11.08: Advanced Printing Systems

Big Ideas

1. Printing methods vary based on scale, material, and purpose.
2. Prepress processes prevent costly production errors.
3. Variable data enables customization at scale.

Essential Questions

1. How do designers select the correct printing method?
2. Why is preflight critical before printing?
3. How does variable data printing change production possibilities?

Students will know	Students will be able to do
11.8.1 Offset, digital, and wide format workflows	• Select printing methods by job specs

Students will know	Students will be able to do
	• Prepare print ready files• Evaluate workflow efficiency
11.8.2 Prepress and RIP processes	• Run preflight checks • Set up imposition layouts• Interpret RIP settings
11.8.3 Variable data printing concepts	• Create variable data templates • Execute data merge projects• Evaluate final print quality

Industry Vocabulary

Offset printing, digital printing, wide format, prepress, RIP, imposition, substrate, variable data printing, Fiery, finishing

Vision of the Graduate Alignment

- Work Ready
- A Problem Solver
- A Critical Thinker

AI Strand

Students label print jobs by **method, substrate, and error type**, train a classifier to recommend print processes, and analyze misclassifications to understand workflow constraints.

Equipment Embedded

- Digital and offset printers
- Wide format printers
- RIP software (Fiery)
- Finishing and bindery equipment

Priority Standard 11.09: Estimate & Communicate Costs

Big Ideas

1. Accurate costing supports sustainable business practices.
2. Clear communication prevents financial disputes.
3. Scope control protects both client and designer.

Essential Questions

1. What costs must be considered in production?
2. How do estimates differ from final invoices?
3. How does scope control affect profitability?

Students will know	Students will be able to do
11.9.1 Cost components in print production	• Calculate materials, labor, and spoilage • Apply shop rates and markup • Evaluate job costs
11.9.2 Quotes, estimates, and invoices	• Produce accurate estimates • Write clear quotes and invoices • Communicate pricing transparently
11.9.3 Scope control practices	• Document scope and changes • Prevent scope creep • Justify pricing decisions
11.9.4 Cost-Driven Design Trade-offs	• Analyze how design choices impact production cost, materials, and labor. • Compare alternative design solutions and identify cost-effective options. • Justify design trade-offs based on budget, quality, and client expectations.

Students will know	Students will be able to do
11.9.5 Budget Constraints	• Interpret project budgets to determine allowable design and production options. • Modify design plans to remain within defined budget constraints. • Communicate budget-related limitations and adjustments to clients or stakeholders.
11.9.6 Value Engineering Concepts	• Identify opportunities to reduce costs without compromising essential design intent. • Apply value engineering strategies to improve efficiency in materials, processes, or workflows. • Evaluate revised designs to confirm they meet functional, aesthetic, and budget requirements.

Industry Vocabulary

Estimate, quote, invoice, markup, margin, labor cost, material cost, spoilage, scope creep, profitability

Vision of the Graduate Alignment

- A Problem Solver
- An Effective Communicator
- Work Ready

AI Strand

Students build a dataset of **job specs vs. actual costs**, train a model to predict cost overruns, and revise estimates to improve pricing accuracy.

Equipment Embedded

- Production tracking systems
- Workstations
- Shop production equipment for real cost data

Priority Standard 11.10: Basic 3D Modeling

Big Ideas

1. 3D design introduces spatial thinking.
2. Clean topology supports realistic rendering.
3. Presentation quality affects perception of design.

Essential Questions

1. How does 3D modeling differ from 2D design?
2. Why is topology important in 3D models?
3. How do lighting and materials influence realism?

Students will know	Students will be able to do
11.10.1 3D coordinate space and navigation	• Navigate 3D workspaces • Manipulate objects in 3D space• Use transforms accurately
11.10.2 Mesh topology fundamentals	• Build models from primitives • Maintain clean topology• Apply modifiers and booleans non-destructively
11.10.3 Rendering and presentation basics	• Apply materials and textures • Set up lighting and cameras• Render and export portfolio ready images
11.10.4 Visualization Workflows	• Select appropriate 3D visualization workflows to represent design concepts accurately.

Students will know	Students will be able to do
	• Convert 2D design concepts into basic 3D models for visualization purposes. • Explain how visualization workflows support design planning and production decisions.
11.10.5 Client Preview Techniques	• Generate 3D previews to communicate design intent to clients or stakeholders. • Use rendered views or mockups to support client feedback and approval. • Revise visualizations based on client input to improve clarity and understanding.
11.10.6 Presentation Standards	• Integrate 3D visualizations into professional presentations and portfolios. • Present 3D design concepts using clear explanations and appropriate visual aids. • Defend design decisions using visual evidence from 3D models and renderings.

Industry Vocabulary

3D workspace, mesh, vertices, edges, faces, topology, modifier, boolean, material, render

Vision of the Graduate Alignment

- A Critical Thinker
- A Problem Solver
- Work Ready

AI Strand
Students classify 3D models by **topology quality**, train a model to flag geometry issues, and revise meshes to improve rendering reliability.

Equipment Embedded

- 3D-capable workstations
- Rendering software
- Presentation displays
- Optional 3D printers (where available)

Grade 12 Graphic Design Curriculum

Grade 12 Graphic Design Course Map (Two-Semester Model)

Course Length: Full Year
Structure: 2 Semesters (18–20 weeks each)
Approach: Capstone-driven, industry-aligned progression emphasizing project management, mass communication, independent work, advanced media production, ethical practice, and professional presentation

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Semester 1 – Professional Systems, Media Strategy & Project Management

Focus: Safety, mass communication, planning, media literacy, branding, and independent workplace readiness

Unit	Priority Standards	Focus Areas	Estimated Duration
Unit 1: Materials Safety & Compliance	12.1	Advanced safety practices, material handling, compliance, risk prevention	2 weeks
Unit 2: Mass Communication & Media Strategy	12.2	Audience scale, media systems, ethics, message effectiveness	3 weeks
Unit 3: Project Planning & Management	12.3	Scope, timelines, milestones, documentation, evaluation	3–4 weeks
Unit 4: Media Literacy & Ethical Analysis	12.7	Bias, credibility, ethical evaluation, responsible distribution	2–3 weeks
Unit 5: Brands, Advertising & Marketing Platforms	12.5	Branding systems, campaigns, analytics, Adobe Express workflows	3 weeks

Semester 1 Culminating Experience	Integrated	Managed branding or mass-media campaign with documentation and evaluation	2 weeks

Semester 1 Outcomes

Students will:

- Apply **advanced safety and compliance practices** in production environments
- Design and evaluate **mass communication campaigns** ethically and strategically
- Plan and manage **complex design projects** using professional tools
- Critically analyze **media messages for bias, credibility, and impact**
- Produce **brand-aligned marketing assets** using industry platforms
- Document decisions and outcomes using **professional project records**

Semester 2 – Independent Application, Advanced Media & Capstone Integration

Focus: Independent study, advanced design mastery, animation, and senior capstone execution

Unit	Priority Standards	Focus Areas	Estimated Duration
Unit 6: Independent Study & Work-Based Learning	12.4	Workplace norms, accountability, applied skills, reflection	3–4 weeks
Unit 7: Graphic Design Mastery	12.6	Professional workflows, justification frameworks, quality standards	3 weeks
Unit 8: Animation & 3D Modeling Foundations	12.8	2D animation, introductory 3D modeling, rendering, evaluation	3 weeks
Unit 9: Senior Capstone Project	12.9	Integration, execution, presentation, portfolio curation, reflection	5–6 weeks

Semester 2 Outcomes

Students will:

- Work **independently in authentic or simulated professional environments**
- Demonstrate **mastery of graphic design principles and workflows**
- Create **2D animation and introductory 3D visualizations**
- Plan, execute, and defend a **comprehensive senior capstone**
- Curate and present a **professional portfolio**
- Articulate readiness for **employment, certification, or postsecondary education**

Year-at-a-Glance Summary

Semester	Primary Emphasis
Semester 1	Safety, media strategy, planning, branding, ethics
Semester 2	Independent work, advanced production, animation, capstone

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Assessment & Evidence (Across Both Semesters)

- Safety compliance documentation and material handling logs
- Mass communication analyses and campaign plans
- Project schedules, risk logs, and evaluation reports
- Media literacy critiques and ethical analyses
- Brand campaign assets with performance evaluation
- Independent study journals and workplace documentation
- Animation and 3D modeling artifacts
- Senior capstone deliverables and professional presentation
- Curated portfolio aligned to postsecondary or workforce goals

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Grade 12 → Postsecondary / Workforce Transition

This course map intentionally ensures students graduate with:

- Demonstrated **independent professional capability**
- Project management and documentation experience
- Ethical, large-scale media communication skills
- A **portfolio-quality body of work**
- Capstone evidence aligned to **industry expectations**
- Clear articulation of **next-step readiness**

CTECS Graphic Design – Grade 12 Curriculum

Grade 12 represents the **culmination of technical skill development, professional practice, and independent application**. Students synthesize design, media, and production knowledge through real-world simulations, work-based learning, and a senior capstone experience aligned to industry expectations.

Program-Wide Big Ideas (Grade 12)

1. **Professional designers plan, manage, and evaluate complex projects.**
2. **Mass communication shapes public understanding and behavior.**
3. **Independent work requires accountability, reflection, and adaptability.**
4. **Design mastery is demonstrated through sustained, authentic application.**

Program-Wide Essential Questions (Grade 12)

1. How do designers manage complex projects from concept to delivery?
2. How does media influence audiences at scale?
3. What responsibilities accompany independent professional work?
4. How is readiness for industry or postsecondary pathways demonstrated?

Priority Standard 12.1: Materials Safety

Students will apply advanced safety practices when selecting, handling, and using materials and equipment in production environments.

Big Ideas

- Professional environments require strict adherence to safety standards.
- Material selection impacts health, quality, and compliance.
- Prevention reduces risk and liability.
- Safety culture reflects professional responsibility.

Essential Questions

- How do material choices affect safety and outcomes?
- Why is compliance critical in professional settings?
- How can hazards be anticipated and mitigated?
- What responsibilities do designers have for workplace safety?

Learning Outcomes	
12.1.1 Safety Regulations	• Interpret safety documentation, including SDS and equipment manuals, to identify hazards and required precautions. • Apply safe handling procedures when working with materials, tools, and equipment. • Comply with disposal requirements for materials and waste in accordance with safety and environmental regulations.
12.1.2 Material Properties	• Identify safety risks associated with different materials used in graphic design and production. • Select appropriate materials based on project requirements and safety considerations.

	• Justify material choices using safety guidelines, intended use, and production constraints.
12.1.3 Compliance	• Follow established safety protocols consistently in instructional and production environments. • Document safety incidents, concerns, or near-misses using professional reporting practices. • Maintain organized, clean, and safe workspaces that meet professional standards.
12.1.4 Prevention	• Anticipate potential hazards during design and production activities. • Adjust workflows and procedures proactively to reduce risk. • Model safe behavior and promote a culture of safety for peers and collaborators.

Industry Vocabulary

- Material Safety Data Sheet (MSDS/SDS)
- Ventilation
- Toxicity
- Hazard classification
- Disposal protocols

Vision of the Graduate Alignment

- **Responsible Citizen:** Maintains safe, compliant work environments
- **Problem Solver:** Anticipates and mitigates material-related risks

Standards Alignment

- OSHA General Industry Standards
- ISTE 1.2 Digital Citizen

AI Strand

- Evaluating risk data and safety classifications used in automated systems

Equipment Embedded

- Printing and finishing equipment
- Chemical-based materials (inks, adhesives)
- Safety equipment

Priority Standard 12.2: Mass Communications

Students will analyze and design media intended for large-scale public audiences.

Big Ideas

- Media influences public perception and behavior.
- Audience scale changes design strategy.
- Ethical communication is essential in mass media.
- Distribution channels affect message reach.

Essential Questions

- How does mass media shape public understanding?
- What responsibilities accompany large-scale messaging?
- How do designers adapt messages for broad audiences?
- How is media effectiveness evaluated?
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Learning Outcomes	
12.2.1 Media System	• Identify and compare media channels used in mass communication campaigns. • Analyze how different channels affect audience reach and message distribution.

	• Evaluate the overall impact of media system choices on campaign effectiveness.
12.2.2 Audience Analysis	• Define target audiences using demographic, behavioral, and contextual factors. • Tailor messaging strategies to align with audience needs, values, and platforms. • Assess message effectiveness based on audience response and engagement data.
12.2.3 Ethics	• Identify bias and ethical concerns within mass communication messages. • Evaluate the social and professional responsibility of campaign content. • Adjust messaging to address ethical considerations while maintaining campaign goals.
12.2.4 Strategy	• Plan mass communication campaigns aligned to defined goals and audiences. • Measure campaign outcomes using performance data and success criteria. • Revise messaging strategies based on outcome analysis and ethical evaluation.
12.2.5 Campaign performance indicators	• Identify appropriate performance indicators (e.g., engagement, conversion, response rate) for mass communication campaigns. • Analyze campaign outcomes using defined performance indicators. • Use performance indicator data to recommend improvements to messaging or distribution strategies.
12.2.6 Audience reach Metrics	• Interpret audience reach data across multiple media platforms. • Compare reach metrics to evaluate the effectiveness of different distribution channels.

	• Adjust campaign strategies to expand or better target audience reach.
12.2.7 Message effectiveness criteria	• Evaluate message effectiveness based on clarity, relevance, and audience response. • Apply effectiveness criteria to compare alternative message designs. • Revise messaging to improve impact while maintaining ethical and professional standards.

Industry Vocabulary

- Mass media
- Target demographic
- Distribution channels
- Public messaging

Vision of the Graduate Alignment

- **Effective Communicator:** Designs messages for broad audiences
- **Ethical Thinker:** Evaluates social impact of media

Standards Alignment

- ISTE 1.6 Creative Communicator
- National Core Arts Standards (VA:Cn)

AI Strand

- Understanding algorithmic amplification and reach

Equipment Embedded

- Design and publishing platforms
- Digital distribution tools

Priority Standard 12.3: Project Planning + Management

Students will plan, manage, and evaluate design projects using professional workflows.

Big Ideas

- Successful projects require intentional planning.
- Management tools support efficiency and accountability.
- Flexibility is necessary when challenges arise.
- Evaluation improves future performance.

Essential Questions

- How are complex projects effectively managed?
- Why is documentation critical to project success?
- How do professionals respond to setbacks?
- How is project success measured?

Learning Outcomes	
12.3.1 Planning	• Define project scope, deliverables, constraints, and success criteria prior to execution. • Create detailed project timelines that include milestones, deadlines, and review points. • Allocate time, tools, materials, and human resources effectively to support project goals.
12.3.2 Management	• Track project progress against timelines, milestones, and deliverables. • Adjust project plans in response to challenges, changes, or feedback. • Resolve project issues using problem-solving strategies and professional judgment.

12.3.3 Documentation	• Maintain accurate project records including plans, revisions, and decision logs. • Communicate project updates clearly to instructors, peers, or external stakeholders. • Reflect on project outcomes using documentation to support evaluation and improvement.
12.3.4 Evaluation	• Assess project success using defined metrics and success criteria. • Identify areas for improvement based on evaluation results and stakeholder feedback. • Apply feedback to refine processes and outcomes in future projects.
12.3.5 Risk Management strategies	• Identify potential risks related to scope, timeline, budget, and production constraints within a project. • Develop and document risk mitigation strategies to reduce impact on project outcomes. □ Evaluate project progress and adjust risk management strategies as conditions change.
12.3.6 Decision Documentation Practices	• Record key design and project decisions using professional documentation methods. • Explain the rationale for decisions based on constraints, data, and stakeholder input. • Maintain organized documentation that supports transparency, accountability, and review.
12.3.7 Success Metrics	• Define measurable success criteria aligned to project goals and client expectations. • Assess completed projects using established success metrics.

	• Use evaluation results to reflect on project effectiveness and inform future improvements.

Industry Vocabulary

- Scope
- Milestones
- Deliverables
- Timeline
- Risk management

Vision of the Graduate Alignment

- **Problem Solver:** Manages complex tasks
- **Professional:** Meets deadlines and specifications

Standards Alignment

- ISTE 1.4 Innovative Designer

AI Strand

- Using data and automation to support planning decisions

Equipment Embedded

- Project management tools
- Collaboration platforms

Priority Standard 12.4: Independent Study for Work-Based Learning

Students will independently apply skills in authentic or simulated workplace environments.

Big Ideas

- Independence demonstrates readiness.

- Professional environments expect accountability.
- Reflection supports growth.
- Adaptability is essential in the workplace.

Essential Questions

- What does professional independence look like?
- How is learning applied in real-world contexts?
- Why is reflection important for growth?
- How do professionals adapt to feedback?

Learning Outcomes	
12.4.1 Workplace norms	• Follow workplace expectations related to conduct, dress, safety, and professionalism. • Communicate professionally with supervisors, coworkers, and stakeholders using appropriate language and formats. • Manage time effectively to meet workplace schedules, deadlines, and responsibilities.
12.4.2 Application	• Apply technical and professional skills independently in a real or simulated workplace setting. • Adapt work practices and outcomes based on supervisor or mentor feedback. • Solve workplace problems using critical thinking and appropriate resources.
12.4.3 Reflection	• Document workplace learning experiences, tasks, and skill development. • Evaluate personal growth and performance using established criteria. • Set short- and long-term goals based on reflection and feedback.

12.4.4 Accountability	• Meet all participation, attendance, and performance requirements of work-based learning experiences. • Maintain accurate logs and records of hours, tasks, and outcomes. • Demonstrate responsibility and reliability through consistent completion of assigned duties.
12.4.5 Professional Performance Indicators	• Identify professional performance indicators relevant to graphic design and related career pathways. • Evaluate their own work-based performance using established professional criteria. • Use performance indicator feedback to set goals for improvement and professional growth.
12.4.6 Documentation Requirements	• Compile required documentation demonstrating completion of work-based learning experiences. • Maintain accurate records of tasks, hours, skills, and outcomes using professional formats. • Organize documentation to support evaluation, portfolio inclusion, and external review.
12.4.7 Reflection Frameworks	• Apply structured reflection frameworks to analyze learning experiences and outcomes. • Connect work-based learning experiences to career goals and postsecondary plans. • Articulate strengths, challenges, and growth areas based on reflective analysis.

Industry Vocabulary

- Internship
- Work-based learning
- Professional conduct
- Reflection

Vision of the Graduate Alignment

- **Independent Learner:** Demonstrates autonomy
- **Professional:** Adheres to workplace norms

Standards Alignment

- ISTE 1.1 Empowered Learner

AI Strand

- Evaluating workplace technologies and automation

Equipment Embedded

- Industry-standard hardware and software

Priority Standard 12.5: Brands, Ads, & Marketing in Adobe Express

Students will design branded marketing materials using industry-aligned platforms.

Big Ideas

- Brands communicate identity and values.
- Marketing relies on clarity and consistency.
- Platform tools shape workflow efficiency.
- Data informs marketing decisions.

Essential Questions

- How do brands influence audiences?
- What makes marketing materials effective?
- How do platforms streamline production?
- How is marketing success measured?

Learning Outcomes	
12.5.1 Branding	**• Identify core brand elements including visual identity, messaging, and tone. • Maintain brand consistency across multiple deliverables and platforms. • Explain branding strategies and design decisions based on audience, purpose, and brand goals.**
12.5.2 Marketing	**• Design marketing materials that align with brand identity and campaign objectives. • Identify and target specific audiences using demographic and behavioral considerations. • Measure and analyze engagement data to evaluate marketing effectiveness.**
12.5.3 Tools	**• Use digital marketing and design platforms efficiently to support campaign production. • Customize templates to meet brand standards and project requirements. • Export assets in appropriate formats and specifications for intended distribution channels.**
12.5.4 Evaluation	**• Analyze the effectiveness of branding and marketing materials using defined criteria and data. • Revise designs based on evaluation results, feedback, and performance metrics. • Justify design revisions and marketing decisions using evidence and professional reasoning.**

Industry Vocabulary

- Branding
- Campaign
- Call to action
- Brand identity

Vision of the Graduate Alignment

- **Creative Thinker:** Builds cohesive brand assets
- **Effective Communicator:** Aligns message and visuals

Standards Alignment

- ISTE 1.6 Creative Communicator

AI Strand

- Understanding template automation and content generation

Equipment Embedded

- Adobe Express
- Digital publishing tools

Priority Standard 12.6: Graphic Design 12

Students will demonstrate mastery of foundational graphic design processes and techniques.

Big Ideas

- Mastery is demonstrated through quality and consistency.
- Design decisions require justification.
- Professional workflows support efficiency.
- Iteration improves outcomes.

Essential Questions

- What defines professional-quality design?
- How do designers justify visual decisions?
- Why are workflows important?
- How does feedback improve work?

Learning Outcomes	
12.6.1 Design Principles	• Apply design principles intentionally to create clear, effective, and professional layouts. • Evaluate design work using established principles and industry standards. • Revise layouts to improve hierarchy, balance, readability, and visual impact.
12.6.2 Technical Skills	• Use industry-standard design tools fluently and efficiently. • Prepare files that meet technical specifications for print, digital, or production output. • Verify that final files comply with required formats, settings, and standards.
12.6.3 Process	• Follow professional design workflows from concept through final production. • Document design decisions, constraints, and revisions using professional practices. • Iterate designs based on feedback, evaluation criteria, and project goals.
12.6.4 Quality	• Produce polished, professional-quality design work suitable for external review. • Evaluate work against defined quality and industry standards. • Defend design choices using evidence, principles, and project constraints.
12.6.5 Design Justification Frameworks	• Apply structured design justification frameworks to explain design decisions.

	• Defend design choices using audience needs, constraints, and professional standards. • Communicate design rationale clearly to external reviewers or clients.
12.6.6 Evaluation Criteria	• Evaluate design work using defined professional and industry criteria. • Compare work against benchmarks to identify strengths and areas for improvement. • Use evaluation results to guide revisions and final design decisions.
12.6.7 Revision documentation methods	• Document revisions clearly, including the reason for each change. • Track design iterations using professional revision documentation practices. • Present revision histories as evidence of problem-solving and design growth.

Industry Vocabulary

- Layout
- Typography
- Composition
- Visual hierarchy

Vision of the Graduate Alignment

- **Creative Thinker:** Produces professional-quality work
- **Problem Solver:** Applies design principles effectively

Standards Alignment

- National Core Arts Standards (VA:Cr2)

AI Strand

- Evaluating AI-assisted design workflows

Equipment Embedded

- Professional design software

Priority Standard 12.7: Media Literacy

Students will critically evaluate media messages for accuracy, bias, and intent.

Big Ideas

- Media messages are constructed.
- Bias influences perception.
- Credibility varies by source.
- Ethical consumption matters.

Essential Questions

- How can media messages be evaluated critically?
- What role does bias play in media?
- How do consumers determine credibility?
- Why is ethical media consumption important?

Learning Outcomes	
12.7.1 Media Types	• Identify and classify different media types and sources used in professional and civic communication. • Analyze the intent and purpose behind media messages across platforms. • Assess the credibility of media sources using established evaluation frameworks.
12.7.2 Bias	• Detect bias in media messages through language, imagery, and framing.

	• Compare multiple perspectives on the same issue to identify differences in representation. • Explain how bias can influence audience perception and decision-making.
12.7.3 Analysis	• Deconstruct media messages to examine structure, techniques, and underlying assumptions. • Cite specific evidence from media content to support analytical conclusions. • Present findings clearly using professional language and appropriate visual or written formats.
12.7.4 Ethics	• Evaluate the potential social, cultural, and ethical impact of media messages. • Make informed design and distribution decisions grounded in ethical standards. • Share media content responsibly, considering audience, context, and consequences.
12.7.5 Media Credibility Frameworks	• Apply media credibility frameworks to evaluate the reliability of sources and messages. • Distinguish between credible, biased, and misleading media content using defined criteria. • Justify design and distribution decisions based on source credibility and audience trust.
12.7.6 Ethical evaluation criteria	• Evaluate media content using ethical criteria related to accuracy, representation, and intent. • Identify ethical concerns in media messages and explain potential impacts on audiences. • Make design and communication decisions that align with professional ethical standards.

12.7.7 Responsible distribution practices	• Select appropriate distribution channels based on audience, purpose, and ethical considerations. • Assess potential risks and consequences associated with media distribution choices. • Implement responsible distribution practices that support transparency, accuracy, and accountability.

Industry Vocabulary

- Media bias
- Misinformation
- Disinformation
- Credibility

Vision of the Graduate Alignment

- **Ethical Thinker:** Evaluates information critically
- **Responsible Citizen:** Consumes and shares media responsibly

Standards Alignment

- ISTE 1.2 Digital Citizen

AI Strand

- Understanding synthetic media and misinformation

Equipment Embedded

- Research tools
- Media analysis platforms

Priority Standard 12.8: 2D & 3D Animation and Backsplash Modeling

Students will create 2D and introductory 3D animations and models using industry tools.

Big Ideas

- Motion adds meaning to design.
- Spatial thinking supports 3D work.
- Workflow management supports complex production.
- Technical accuracy affects realism.

Essential Questions

- How does motion enhance communication?
- What challenges arise in 3D modeling?
- How do workflows support animation projects?
- How is quality evaluated in animation?

Learning Outcomes	
12.8.1 Animation Principles	• Create motion sequences that communicate intent, hierarchy, and visual flow. • Control timing and pacing to enhance clarity, emphasis, and audience engagement. • Apply animation effects purposefully to support message and usability rather than decoration.
12.8.2 3d Concepts	• Build basic 3D models that accurately represent design concepts or products. • Apply textures and materials to enhance realism and visual communication. • Render 3D scenes suitable for presentation, visualization, or client review.
12.8.3 Workflow	• Use timelines effectively to organize animation or 3D production sequences.

	• Manage assets using structured naming, storage, and version control practices. • Export animation or 3D projects using appropriate formats and settings for intended use.
12.8.4 Evaluation	• Review animation and 3D outputs to assess technical accuracy and communication effectiveness. • Refine work based on feedback, performance criteria, and production constraints. • Explain animation and 3D techniques used, including workflow decisions and problem-solving strategies.

Industry Vocabulary

- Keyframes
- Timeline
- Rendering
- 3D modeling
- Texturing

Vision of the Graduate Alignment

- **Creative Thinker:** Explores motion and spatial design
- **Problem Solver:** Translates concepts into animated forms

Standards Alignment

- National Core Arts Standards (VA:Cr1, VA:Cr2)

AI Strand

- Understanding procedural animation and rendering automation

Equipment Embedded

- Animation and modeling software

- High-performance computers

Priority Standard 12.9: Senior Capstone

Students will design, manage, and present a comprehensive capstone project demonstrating career readiness.

Big Ideas

- Capstone projects demonstrate readiness.
- Integration reflects mastery.
- Presentation communicates professionalism.
- Reflection supports transition beyond high school.

Essential Questions

- How does a capstone demonstrate mastery?
- How are skills integrated into one project?
- What makes a professional presentation effective?
- How does reflection support future planning?

Learning Outcomes	
12.9.1 Integration	• Synthesize technical, design, and professional skills from Grades 9–12 into a cohesive capstone project. • Define project scope, constraints, and deliverables aligned to real-world expectations. • Establish clear project outcomes and success criteria prior to execution.
12.9.2 Execution	• Manage a capstone project timeline to meet defined milestones and deadlines. • Produce professional-quality work that aligns with approved scope and expectations.

	• Adjust workflow and task sequencing to address challenges while maintaining project goals.
12.9.3 Presentation	• Present capstone work using professional presentation techniques and industry-appropriate language. • Defend design and production decisions using evidence, constraints, and audience considerations. • Respond constructively to questions and feedback from instructors, peers, or external reviewers.
12.9.4 Reflection	• Evaluate personal growth and skill development across the full program of study. • Document learning experiences, challenges, and problem-solving strategies from the capstone process. • Articulate readiness for employment, certification, or postsecondary education based on demonstrated evidence.
12.9.5 Portfolio curation standards	• Select and organize portfolio artifacts that demonstrate technical skill, design process, and professional growth. • Curate portfolio content to reflect industry expectations and targeted career or postsecondary pathways. • Evaluate portfolio quality using professional curation standards and revise selections accordingly.
12.9.6 Professional presentation expectations	• Present portfolio and capstone work using industry-appropriate language, visuals, and structure. • Communicate design intent, process, and outcomes clearly to external audiences. • Respond to questions and feedback professionally during portfolio or capstone presentations.

12.9.7 Reflection and transition planning frameworks	• Apply structured reflection frameworks to analyze capstone experiences and learning outcomes. • Articulate strengths, skills, and areas for continued development based on evidence. • Develop a transition plan outlining next steps for employment, certification, or postsecondary education.

Industry Vocabulary

- Capstone
- Portfolio
- Presentation
- Client brief

Vision of the Graduate Alignment

- **Professional:** Demonstrates readiness for next steps
- **Independent Learner:** Synthesizes learning across domains

Standards Alignment

- ISTE 1.7 Global Collaborator

AI Strand

- Evaluating ethical and effective AI integration

Equipment Embedded

- Full program toolset
- Presentation and portfolio platforms